

POLICY RESEARCH WORKING PAPER

WPS 1508
1508

Small and Medium-Size Enterprises in Economic Development

Possibilities for Research and Policy

Sidney G. Winter

How (if at all) can the World Bank promote economic development by mobilizing resources organized as small and medium-size enterprises in developing countries? What lines of research about small and medium-size enterprises would help support the Bank's policymaking in this area?



Summary findings

The World Bank's most important long-term advantage in promoting development, says Winter, may lie in opportunities to address related obstacles simultaneously. It could mount concurrent efforts to address the problems of small and medium-size enterprises in a particular sector, region, or economy, for example. It could address the conditions of founding new firms, providing finance or technical assistance, developing mutual support institutions, resolving disputes, and perhaps reducing counterproductive government interventions.

Were the Bank to follow such a coordinated approach, programs could be designed to generate data to illuminate the impacts and interactions of various elements of policy. These data could be exploited, then, in research designs, or even the design of management information systems, shaped by program evaluation.

Winter proposes four general issues for research (plus a series of topics for each issue):

- Can Bank initiatives involving small and medium-size enterprises in developing countries facilitate the entry of these enterprises into similar learning relationships with other firms — foreign firms, larger firms in their own countries, or each other? (Topics/actionable items: Identify large firms noted for their willingness to help improve their suppliers' operations; survey these firms' practices and the criteria they use to identify possible suppliers not currently in their system;

consider how these and other sources define prevailing "standards" for small and medium-size enterprises.)

- The economic significance of high "turbulence" (entry and exit rates) in small-firm populations is poorly understood. The fact of high turbulence is well-documented in industrial countries; it is not for developing countries, but available data suggest a broadly similar pattern. Are high failure rates for small businesses symptomatic of an important shortcoming in the system of economic organization itself? Or should the unit of analysis be the enterprise, the entrepreneur, or the entrepreneur's family?

- Is the apparent trend favoring a larger economic role for smaller production units autonomous rather than induced by other changes? Does it depend on general operating factors such as the declining costs of communication and computation?

- The rate of learning by a small firm may depend on the nature of its transacting partner. Certain multinational enterprises make good teachers, for example, but certain local labor markets or markets for consumer goods and services may not be well-positioned for relevant learning. They may learn well how to adjust to local circumstances but not to the international diffusion of technology and ways of organizing (the main source of hope for developing countries). Perhaps Bank policy should be more concerned with transaction patterns.

This paper — a product of the Finance and Private Sector Development Division, Policy Research Department — is part of a larger effort in the department to study small and medium-size enterprises and their role in development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Danièle Evans, room N9-059, telephone 202-473-8526, fax 202-522-1155, Internet address devans@worldbank.org. September 1995. (58 pages)

The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be used and cited accordingly. The findings, interpretations, and conclusions are the authors' own and should not be attributed to the World Bank, its Executive Board of Directors, or any of its member countries.

SMALL AND MEDIUM ENTERPRISES IN ECONOMIC DEVELOPMENT:
POSSIBILITIES FOR RESEARCH AND POLICY

Sidney G. Winter
The Wharton School

Report to the
Policy Research Department
THE WORLD BANK

SMALL AND MEDIUM ENTERPRISES IN ECONOMIC DEVELOPMENT:
POSSIBILITIES FOR RESEARCH AND POLICY

Sidney G. Winter

The general question of the role of small and medium enterprise in economic development is the subject of renewed discussion at the World Bank. Specific questions range from the most fundamental -- for example, is there anything about the economics of small and medium enterprise that actually warrants this attention? -- to issues of policy orientation, definition of related research topics, and design of specific policies that the Bank might pursue. In this informal essay, I attempt to contribute to the Bank's discussion in a way that aims at being provocative and also reflects my comparative advantage. One source of that comparative advantage is that I can bring a fresh point of view to the subject; this is the optimistic assessment of the fact that I do not have specific expertise relating to economic development or small and medium enterprise, nor do I have more than a general appreciation of the nature of past Bank policy in the area. I do, however, have some experience with policy research, and a long-standing interest in how economic theories and concepts relate to the various "facts on the ground," including behavioral facts, institutional facts and managerial/administrative facts. Such understanding as I have managed to obtain in this quest may perhaps be helpful in

identifying the promising types of programs that the Bank might pursue in relation to small and medium enterprise.

The principal purpose of this essay is to identify lines of research on small and medium enterprise that would provide helpful support to the Bank's policy making in the area. It is, however, not really possible to separate the question of what policy research is needed from the question of what the policy should be. Ideally, the relationship between policy making and policy research is a dialogue that becomes increasingly specific as it proceeds. The significance of this general point is magnified in the present context by the fact that "small and medium enterprise" is such a broad category; narrowing the domain in some way is a prime requisite both for coherent policy and for a coherent research program, and the narrowing has to be accomplished in mutually consistent ways. It is for this reason that I present a framework of policy ideas in this paper; without such a framework the research suggestions would not make much sense. This rationale can be restated as a disclaimer: the policy ideas set forth in this essay are not to be construed as assumptions of fact about the present or future course of the Bank's policies.

The essay is organized as follows. In the first section I propose a specific framing of the policy question facing the Bank, and describe the analytical background from which this question is addressed. The second section lays out three principles that the Bank might adopt in developing policies

toward small and medium enterprise. Section three reviews some areas of current understanding of the economics of small and medium enterprise; the empirical discussion draws disproportionately on evidence from advanced countries where the data are better. Research suggestions are set forth in the final section.

Perspectives

On the question. I begin by framing the question that I will address in this essay: *How (if at all) can the Bank promote economic development by mobilizing resources organized as small and medium enterprises in developing countries?* In addition to using this framing in my own discussion here, I intend also to offer support for the idea that some such framing would provide a useful structure for the Bank's internal discussion. (There is, of course, no clearly identifiable recipient for this sort of suggestion, there being no office charged with the determination of discussion frameworks.)

Although this proposed framing has the ring of bland generalities, it may be controversial in some respects. For this reason, the explanation below is relatively detailed and mixed with some advocacy. The minimum objective of this advocacy is to persuade the reader that this framing might be acceptable. The maximum aspiration is to contribute to the development of a consensus at the Bank that something like this is, in fact, the most helpful way to frame the question.

How ... can the Bank: The question to be addressed is ultimately about policy design for the Bank. It is not, for example, about the merits or demerits of SMEs as a feature of a society. It is not even about the conditions that promote or impede the development of SMEs, except, perhaps, to the extent that those conditions are influenceable by Bank policies.

(if at all): The quest for an effective policy could in the end prove fruitless. More important, it could be partially successful to a degree that implies limiting the scale and scope of Bank activity in the near term to something less than what the Bank might be prepared to support. My own expectation is that the opposite is more likely to be the case -- that the attractive policy opportunities will soon, if not immediately, outrun the available resources. But this issue should not be pre-judged: doing so risks contaminating truly promising ideas for productive initiatives with an admixture of marginal or counterproductive ideas, thus obscuring the promising ones and sacrificing the future gains potentially achievable by the gradual expansion of their application.

promote economic development: Economic development presumably retains its status as an acknowledged high-level goal, although it may have acquired controversial connotations. I propose that it should also be clearly acknowledged as the specific sub-goal that should be addressed in designing policy toward SMEs. This proposed commitment at the sub-goal level can be explained by considering some rejected alternatives. For

example, it has been argued that encouraging small and medium enterprise strengthens bourgeois values and enhances political stability, and by that path serves to promote economic development and other high level goals, such as democracy. While I accept the logic, I am quite skeptical about the idea of designing policy to promote economic development via bourgeois values and political stability, largely because I am doubtful as to whether anyone knows how to do that. I would similarly reject, in the policy design context, the idea SMEs that are generically deserving of support on the ground of their presumptive generic contributions to these sorts of objectives. However valid, such a claim does not provide a sufficiently strong focus for the design task -- and thus risks the waste of the Bank's opportunities and resources. Similar risk inheres in the idea that SMEs are generically deserving of support because of their role in job creation. The latter case demands more careful analysis, which is provided below.

In the first approximation I advocate instead the following train of interpretations: economic development means economic growth; economic growth means productivity growth, and productivity growth means measurable (though not necessarily measured) growth in output per input. I would, of course, concede (in the second approximation) that none of those interpretations is exact. There are valued aspects of economic development that go beyond output growth as that is usually conceived. Also, the use of productivity as a performance

measure is not appealing at the conceptual level; the principles of benefit-cost analysis provide the best available guidance for how success might conceivably be defined and measured in quantitative terms. And of course it should be recognized that whereas a sophisticated cost-benefit analysis leaves off where the difficult and fundamental value questions begin, those questions still deserve consideration according to the best wisdom and judgment that can be mustered.

However, given realistic constraints on the availability of data and analytical capability, a discussion of policy alternatives couched in the sophisticated rhetoric of the second approximation is likely to be a discussion that loses contact with evidence entirely. For policy design purposes, the first approximation has the considerable advantage that a relatively clear-cut and demonstrable policy failure becomes readily imaginable -- a feature that is desirable because of its contribution to sharp focus; it "concentrates the mind".

mobilizing: The choice of the verb here is intended to stress the role of the Bank as an active organizing agent. There is a subtle, but I think important, difference between a view that sees the Bank in this role and one that places the SMEs themselves in a more central position -- a view that might be expressed by some such phrase as "... reduce obstacles to the development of small and medium enterprise." The latter formulation would flow naturally from a "market failure" orientation to economic policy, a perspective that insinuates

the idea that "but for X" all virtues requisite to good economic performance already reside in the economic actors, and the only legitimate task of policy is to do something about X. While this perspective affords many useful insights, it is for various reasons not adequate to the problem at hand.¹

The importance of escaping the market failure mind-set may reach as far as the conceptualization of Bank itself. The Bank is no exception to the rule that the capabilities of institutions matter just as much as their policies; an attempt to discuss policies without regard to the associated capabilities risks being illusory or vacuous. Thus, to suggest a possible role for the Bank as "*mobilizing ...*" is to make an implicit judgment about what sort of organization the Bank is or could be.

resources organized as small and medium enterprises: Most copy editors would probably want to edit the words "resources organized as" out of this phrase, asking what these words contribute to the meaning. Their intended role is to direct attention away from SMEs considered as a collection of actual economic actors, and toward the possibilities of small and medium enterprise as a form (or range of forms) in which certain types of economic resources might be effectively organized.

Again, some consideration of rejected alternatives may help to clarify the intention. A policy of providing SMEs with

¹ This judgment is supported by a brief argument in the appendix to this essay.

improved access to finance can be construed as one that seeks to help individual enterprises (in the service of the higher level goal of development). Assessment of the impact of such a policy might produce the apparently discouraging conclusion that many SMEs are beyond help: with or without improved access to finance, their chances for long-term survival are low. This would seem to imply a negative assessment of the policy -- if one accepts the critical assumption that the effect on long-term survival is an appropriate performance measure.

The suggestion here is that this assumption is simplistic: a deeper analysis is needed. On the face of it, survival data for enterprises of a particular sort say nothing about the viability of that form of enterprise; newly formed businesses generally replace the failures. Neither do the survival data necessarily reflect adversely on the effectiveness of the form as a way of organizing resources, or even on the social return to the particular investments made by failing firms. Of course, if there were evidence showing that incremental financial resources supplied in the interests of development were systematically dissipated in operating losses or merely funded a temporary increase in consumption, this would indeed imply a negative assessment of the policy. But the ultimate occurrence of a business failure does not, as a matter of logic, imply that the life of that business was "a waste" in either of these significant senses. The strength of the association between business life spans and the extent of the economic contribution

over the life span is an empirical question, and the investigation of that question requires careful attention to the measurement of economic contribution.

in developing countries.: This is intended to be non-committal regarding the potential field of application of any policies that might be developed, the idea being to avoid the premature imposition of design constraints. As noted above, it is not a foregone conclusion that good policy options of the indicated type actually exist; still less is it a foregone conclusion that options exist that meet additional criteria -- such as general applicability across countries and economic sectors. Although the scope of potential application is a legitimate concern, the time to confront it is when (and if) there is a portfolio of focused, credible policy options in existence. At that point, an approach to the scope problem that involves mixing, matching and extending the identified options may produce a result that is markedly superior to what could be achieved if the policy design process were constrained from the start to produce individual options of broad scope.

The measure of the practical importance of this point is the enormous diversity and scale of the category "small and medium enterprise." If the process of designing new Bank initiatives in this area is a process that is strongly oriented to using Bank resources effectively, then the breadth of the field suggests that it should be relatively easy to find policies that are promising: policy designs can exploit the

opportunity to (in various metaphors) "cherry pick," "skim the cream" and "seek out the low-hanging fruit first." By contrast, even rather weak design commitments to promoting SMEs generically may easily lead to policy options that are fatally lacking in focus and operational discipline, and susceptible to having the merits of valid core ideas obscured by indiscriminating application.

On the relevant economics. This discussion attends particularly to issues that are illuminated by transactions cost economics (e.g., Williamson (1985)), evolutionary economics (e.g., Nelson and Winter (1982)) and the "new institutional economics" more generally (e.g., North (1990)). It is also significantly informed by organizational ecology (e.g., Hannan and Freeman (1989)), a field of inquiry with roots in sociology but whose substantive interests lie quite close to those of evolutionary economics. All of these approaches have important things to offer to the discussion of policy toward SMEs, especially when these contributions are considered as a complement or critique of what a more mainstream economic view might suggest.

The great service performed by transaction cost economics is that it breathes the life of realistic detail into the abstract analytical category of "markets". More precisely, it performs that service for the more general category of "exchange relations": one of the first consequences of the encounter with more realistic detail is that the concept of a market loses some

of the luster that the economics textbooks have long conferred upon it.

On a narrow interpretation, a market is an institution where similar price terms for numerous transactions in more-or-less homogeneous commodities emerge from more-or-less simultaneous searches for advantageous prices conducted by more-or-less numerous buyers and sellers. Although the world contains many examples of these more-or-less textbook markets, it does not contain nearly enough to warrant an exclusive concern with such markets when addressing the problems of economic organization. At the other extreme, "market" may be construed so broadly as to cover a large portion of all exchange relations, including the very large class of long-term bilateral relations in which a rough calculus of sequential barter replaces price. It is not clear where the outermost limits of "market" lie according to the broad construction; for example, is marriage included? What is clear is that analysis of textbook markets provides an inadequate basis for the understanding of this broader field of exchange relations, and transaction cost economics has made substantial progress in filling the gap.

Overall, the economic contexts of SMEs in developing countries are obviously very diverse. Where textbook markets are involved, policy attention naturally tends to focus on whether the prices formed in those markets are socially appropriate, both in terms of their performance of the rationing

function and in terms of the incentive signals provided to enterprises. But many other types of exchange relations are also involved. In those cases, the TCE viewpoint directs attention to the question of who or what is on the other side of the relationship, and how the relationship is governed. The answer to the governance question is presumed to be specific to the transaction: it depends on transaction attributes and on the parties as well as on broader features of the social context, such as the functioning of the formal legal system. It is recognized that the parties typically have choices to make about governance, just as they do about other aspects of the transaction. Also -- closely related to the governance issues -- the TCE perspective directs attention to the full range of transaction attributes in which the parties may have a stake; there is often a lot more going on than simply a payment of $P \times Q$ in exchange for quantity Q .

Evolutionary economics illuminates the scene from a different angle. Like transaction cost economics, it finds challenge and support in probing to a level of detail that is not reached by standard theoretical categories. In this case, however, the categories pushed aside are not primarily those of market exchange, but those that characterize production possibilities. The language of production functions and production sets gives way to the language of firm capabilities and an account of their sources in organizational routines -- or to the closely related dialect of firm "capabilities" and

"competencies" that is now much in favor in the business strategy literature.² Understanding the processes of change in firm capabilities is the main task, but the quest for this understanding ranges widely across levels of analysis and encounters a multitude of individual issues -- from learning and retention of skills by individual workers and the character of the knowledge embedded in organizations through the "life cycle" patterns of industries and product markets to the roles of government laboratories and universities.

A number of different dynamic mechanisms are involved in the change of firm capabilities. In the large, and on historical time scales, there is a readily discernable trend toward an expansion of the capabilities of firms in general. It can be argued -- as Schumpeter (1934) in fact did -- that this is what "economic development" is all about. The underlying mechanisms, however, admit decline as well as advance. As the phenomena are studied on shorter time scales and in more detail; it becomes very easy to identify episodes, locales, and particular firms or sectors where capabilities have declined. This fact may be puzzling if one is accustomed to thinking of technology in very abstract terms -- as "information" that is non-rivalrous in use, storable and transferrable at zero cost, and a catalyst rather than a constituent of conventional inputs. It is not at all puzzling if one thinks of capability in more

² The intensity of this interest is measured by the reception accorded Prahalad and Hamel (1990) -- now the all-time most requested reprint of the Harvard Business Review.

concrete terms. For example, it is obvious that in many types of organizations (including football teams and economics departments), capabilities at a given time are largely accounted for by the associated personnel at that time: if the best people leave, the organization can no longer do what it did before.

Among the dynamic mechanisms shaping the evolution of capabilities, selection plays a key role. Selection operates at different levels, and can take more than one form at a given level. The principal emphasis in the literature thus far has been on selection at the level of specific business practices (routines) and at the level of firms. Routines become more or less prevalent in the population of business firms partly because they are adopted or rejected by individual firms, and partly as an indirect consequence of firm-level selection (that is, whether firms committed to the routine are collectively faring well or poorly). Firm-level selection dynamics involve both the processes that change the roster (entry and exit) and differential growth of firms on the roster at a given time.

Thus, for example, a routine with a powerful favorable effect on competitive strength tends to become more prevalent because (i) it is adopted (imitated) by firms that did not previously employ it (ii) few firms that have adopted it are likely to abandon it, (iii) new entrants are likely to perceive its value and adopt it initially, (iv) few established firms that have adopted it will fail, (v) firms that have adopted it

are likely to grow faster than those that have not, and to expand the application of the routine as they grow.

There are numerous points of contact between these evolutionary economics ideas and the problems of small and medium enterprise. While differential growth is the dominant form in which selection forces are expressed among larger enterprises, birth and death processes play a much more significant role at the lower end of the size distribution. Better understanding of the economic significance of these processes is therefore an important requisite of good policy design. As suggested above under the heading *resources organized as small and medium enterprises*, it is facile to assume that high birth and death rates of enterprises are necessarily indicative of an institutional malfunction. Discouraging demographics at the firm level do not rule out the possibility that the overall performance of SMEs in a particular sector of a particular economy is improving rapidly. In fact, rapid advance via strong selection at the level of routines could have turbulence at the firm level (high entry and exit) as its logical corollary, granting only the plausible premise that it is easier to establish new practices in new enterprises than it is to overthrow and replace established practices in old enterprises. On the other hand, part of the interest in policy initiatives involving SMEs derives from the vision that, at least occasionally, minor and correctable flaws in the policy context may be killing off firms whose youth, small scale and

shaky financial condition belie the enormous contributions in employment and value-creation that they are capable of making.³ Thus, there are multiple images of what a successfully developing population of SMEs might look like. This fact poses challenges to the measurement of success, both in general and in the context of assessing policy impacts.

In addition to transaction cost economics in the Coase/Williamson tradition and a portion of the field of evolutionary economics, the new institutional economics comprises such areas as the property rights literature, the work of economic historians who focus on institutional change, and more formal analyses concerned with the emergence of standards, norms and conventions. Of the many issues addressed in this broad field, a subset of particular importance here relates to the role of the informal sector. All countries have such "underground economies" in which participants seek to avoid some aspect of governmental involvement in the transaction -- be it taxation, licensing, regulation or the outright prohibition of the transaction itself. And, in all such cases, there is a somewhat hazy boundary zone separating truly "underground" operations from the many firms of the formal sector that cut corners occasionally.

³ A striking example from recent U.S. experience is the case of Sun Microsystems, which in its early days had to "bet the company" on an all-out effort to establish its technical credibility in the marketplace -- making a single deal that not only gave away much of its product, but also (apparently) much of its proprietary technology. Five years after making that deal, Sun was in the Fortune 500.

In many developing countries, however, the firms in the informal sector seem to play a relatively larger role in the total economy, to be more thoroughly isolated from the institutional structure of the formal sector, and to be more likely to be engaged in activities that would be legitimate but for that distancing from the formal sector. In general, firms in the informal sector enjoy cost advantages associated with freedom from taxation and regulation, but suffer some offsetting disadvantages. The latter may include lack of access to whatever institutional support the formal system provides for protection of property, dispute settlement, finance and so forth -- but more fundamentally, such a firm has to "keep its head down" to remain quasi-invisible to the official system. That requirement by itself would seem to rule out not only large size, but also rapid growth through replication of a success formula, as well as close relations with individual firms of the formal sector, including foreign firms. These implications, if correct, suggest a pessimistic assessment of the potential contributions of the informal sector. This is especially so if the assessment is done from an evolutionary perspective, for evolutionary economics stresses the idiosyncratic and context-dependent character of the routines that individual firms create, the desirability of experimentation, and the importance of firm growth driven by replication of success. If a wall at the edge of the formal sector precludes that kind of growth, much of the benefit of experimentation may be lost.

Policy Principles: A First Cut

I turn now to a preliminary characterization of a response to the question framed at the start of this essay. Some features of this response have been intimated in the discussion above, and in the framing of the question itself. The feasibility and desirability of this sort of response is affirmed here as a working hypothesis -- something to be tested first through discussion based on existing knowledge, a sample of which is provided below. If judged promising at that stage, it could be pursued through new research.

In this connection, I should re-emphasize that the policy principles are offered by way of background for the research guidance: useful research is research that tests and refines some tentative commitments about policy directions. Some suggestions for this sort of research are offered at the end of this essay. Farther down the road, it should be possible to use data gathered in the course of implementation to strengthen the supporting research effort.

1) Leverage through learning. Because the Bank's resources are small compared to the aggregate "needs" of SMEs throughout the developing world, there is an obvious need for a strategy to guide the deployment of available resources in directions that provide maximum leverage. The strategy should take full advantage of the Bank's freedom to take a broad and long view when designing and implementing policy initiatives, and should

allow the Bank's own implementation competencies to evolve in tandem with the initiatives themselves.

A credible centerpiece for the formulation of such a strategy is the question: What are the enterprises involved going to learn as a result of the Bank's activities? In pursuing this course, the Bank would in effect attempt to help the SMEs of the developing world to do what many firms of the advanced countries are increasingly trying to do for themselves -- to capture the learning benefits from their activities today, the better to build their opportunities for tomorrow. The consequences of learning are typically difficult to quantify in financial terms, partly because of the inevitable weakness of property rights relating to knowledge. That very fact is one of the considerations that commends learning to the Bank's attention.

There is a kinship between this proposal and the long-familiar case for public subsidy of science, and of basic science in particular. The kinship is real, and derives from the important core of truth in the idea that information is non-rivalrous in use -- and in this sense has high leverage as a fundamental characteristic.⁴ But there are equally important distinctions. Enterprises do not learn to perform specific economic roles by subscribing to academic science and engineering journals, or to the business press, or even by

⁴ See Romer (1993) for an essay on development explicating and emphasizing this point.

observing from afar the behavior of other firms. They learn chiefly by doing, or attempting to do, something quite specific in a specific context. The kind of learning that supports the economic activity of an enterprise integrates much more of human understanding than is available within the limits of any single discipline, though by academic standards the components integrated may be highly imperfect. The issue of "absorptive capacity" is fundamental to understanding firms' limited ability to learn from sources other than their own accumulated experience: whatever the learning experience is, you have to command the prerequisites to benefit from it (Cohen and Levinthal, 1990). (A closely related point is made by the "Velcro theory of learning": it takes both sides to make it stick.) In the end, learning is something that individuals and organizations have to do for themselves -- but opportunity, context and incentives may be subject to external influence.

2) Selectivity and focus. The Bank, as a single large actor on the world scene, faces obvious problems in pursuing policies that seek to mobilize enormous numbers of small actors. A part of the solution to this problem in the past has been to act through intermediaries, such as commercial banks or government-funded promotional institutions; certainly the use of intermediaries of some type is likely to be a feature of any future policy as well. There is, however, another general approach to cutting the potential client population down to size: establish criteria, grounded in the Bank's basic

strategy, that restrict the range of enterprises that the Bank tries to reach. Within the field defined by these criteria, the Bank could attempt to identify the projects that are most promising and focus on these, at least initially. Finally, it could support projects addressed to groups of enterprises defined by such characteristics as size, geographical region and industry or sector -- an approach that would be effective in proportion to the closeness of the causal linkage between these identifying characteristics and the leverage created for the Bank's resources.

The key issue here is whether the vast field of SMEs in developing countries is construed chiefly as a field toward which the Bank has a diffuse moral obligation, or whether it is more like an opportunity set that the Bank can search for the best matches to particular policy ideas. If the former, then the large size of the field is clearly a burdensome liability, but if the latter the size of the field is at least potentially an asset.

To the extent that the Bank succeeds in producing a coherent economic rationale and strategy supporting its policy toward SMEs, to that same extent it will have produced an implicit definition of "technical merit" in a project proposal: placed alongside the strategy statement, some projects will look better than others. In project selection, "technical merit" as thus defined will inevitably be seen as conflicting with other considerations -- values not fully addressed by the strategy,

plus political and bureaucratic considerations. Compromises, some of them quite defensible, will no doubt occur.

It would be helpful if that inevitable process of compromise could be deferred until the strategy is defined and, and even until it has been examined and re-defined after there has been an opportunity to study initial implementation. Only at that stage does it become possible to say what is at stake in a compromise. To advocate selectivity and focus as a policy principle is to urge the importance of conducting the search for a coherent strategy without carrying extra baggage implicit in the likelihood of future compromise. If the principle of selectivity and focus is accepted, the field of SME activity in developing countries can be viewed as an opportunity set.

3) Strengthen linkage. In exercising the design freedom conferred by selectivity, the Bank should be guided by the idea of strengthening linkage. This principle directs attention to those SMEs that might be said to constitute the extensive margin of the global division of labor. The paradigm case is of an enterprise that might, but currently cannot, qualify as a supplier to a multinational corporation. If Bank policy could assist such an enterprise to move across that threshold, the sought-after learning benefits would follow from the experience of engagement with the world economy and, in many cases, from the efforts of the customer to bring the supplier up to global standards. (Such efforts are increasingly recognized as an important aspect of supply management by large corporations;

this is especially so when, as in the case of many developing country SMEs, the potential supplier offers the competitive advantage of low unit cost, but is afflicted with offsetting disadvantages because of quality problems and unfamiliarity with customer procedures.)

Adjacent to that paradigm case stand a variety of other cases: firms whose linkage to the global economy derives from their role as suppliers to the firm of the paradigm case. Those firms will benefit if the paradigm firm prospers, but also, the paradigm firm will benefit if Bank policy somehow improves the performance of its supplier base. Learning can certainly flow both ways in supply chains; in developing countries the most promising sources of leverage come from upstream flows through their product markets, and downstream flows from their capital goods suppliers. Frequently, the large customer can help to play a role in that downstream flow as well, relating, for example, the specifications needed in the firm's equipment to the specifications the customer requires in the products it buys.

There is a distinguishable second sense in which linkage might serve as a guiding principle: linkage is stronger for SMEs that are easier for Bank policy to reach. Of course, it may be possible to devise innovative ways to reach enterprises that appear difficult to reach. But if they are truly difficult to reach in the sense that significant amounts of scarce resources are required to extend the Bank's reach, the selectivity

principle suggests that those resources be applied instead where the linkage is stronger to begin with.

As development progresses, the ability of SMEs to play a significant role in development depends on a wider set of market and non-market linkages -- to education and training from both domestic and foreign universities, to foreign firms considered as technology sources, to government and/or private research organizations. These linkages are appropriate concerns for firms that already have a basic understanding of the functioning and requirements of the global marketplace; it is not clear that there is an effective role here for Bank programs directed specifically at SMEs.

Empirical Observations on the Role of SMEs -- From Data Relating Mostly to the U.S. and Other Advanced Countries

Job Creation. In developing and advanced countries alike, policy attention to small and medium enterprises has long been advocated on the ground that SMEs are a particularly effective vehicle for expanding employment. There was not, to my knowledge, any time when this assessment even appeared to be firmly grounded in careful empirical research. Rather, it seems to have been derived by extrapolation from a handful of facts; careful attention to the problems of interpretation that intervene between those facts and the policy conclusion was long deferred. Recently the pendulum has swung; the careful attention that was lacking has now been given, and the argument

that SMEs are distinctly effective in creating jobs turns out to be full of holes.

The strongest empirical evidence on the question comes from advanced countries, where the data are strongest. However, an important step in the development of that evidence was the identification of the flaws in the statistical logic underlying the prevailing misconceptions; those flaws are as relevant to the interpretation of limited or impressionistic data from developing countries as they are to the situation in advanced countries. And while many valid contrasts can be drawn between the SMEs of developing and advanced countries, most of these do not relate to the key issues of the job creation discussion. In that specific area, available data suggest strong parallels rather than contrasts -- although one important exception to this generalization will be noted subsequently.

Recent work by Davis, Haltiwanger and Schuh (1993) has clarified the issues of statistical logic and presented the empirical evidence for the U.S.. In their critique of the now-fading conventional wisdom,⁵ they identify three issues of statistical logic. First, there is the distinction between gross and net job creation. Although small businesses are disproportionate creators of new jobs, they are also

⁵ The "conventional wisdom" was expressed in its most elaborated form in the work of David Birch (1979, 1987) and in statements of the U.S. Small Business Administration. However, as Davis, Haltiwanger and Schuh point out, the central idea has been put forward repeatedly by a wide range of opinion leaders. For illustrative evidence of the fading of this wisdom, see Nassar, 1994.

disproportionate destroyers of jobs, partly because the businesses themselves have higher failure rates. Secondly, there is the familiar regression fallacy. Since there are some transitory causes of measured employment size in a given year are (such as measurement error), there is a tendency for firms that are particularly large in one year to shrink in subsequent years, and similarly for small firms to grow. This pattern may appear even though, over longer time periods, no systematic relationship between size and employment growth exists. The regression fallacy interacts with, and exacerbates, a third source of interpretive error: the use of broad size categories defined by base-year size. Under such a measurement scheme, some of the growth in "small firm employment" over a year reflects the shrinkage of formerly medium-sized firms. With this sort of migration among categories, job creation can appear to be concentrated in the smaller categories even when firm-by-firm analysis would show job creation to be a strictly increasing function of size.⁶

If these analytical errors are avoided, what is the implication for the role of SMEs in job creation? For the U.S. manufacturing sector, the work of Davis, Haltiwanger and Schuh points to the following conclusions. First, gross rates of job creation and destruction are high in both small and large firms, but higher in the small firm categories than in the large. In

⁶ See Davis, Haltiwanger and Schuh, Box 2, for a numerical example of this point.

the U.S. manufacturing sector, large (> 500 employees) firms account for the bulk of employment, and this fact turns out to dominate the calculation of "net job creation" in terms of absolute numbers. In terms of rates, no clear tendency emerges for net job creation rates to vary systematically with firm size; there is little reason to think that net job creation would be much different if a given segment of economic activity were organized as 50 firms of about 20 employees instead of as single firm of 1000 employees.

Large firms do offer greater job stability, and there is a substantial body of evidence that, in the U.S., employees in large firms fare better in terms of wages and other dimensions of the employment relation. This is true in general, as well as in manufacturing specifically. While the interpretation of this pattern remains a matter of dispute, the difficulty lies in excluding explanations, not in generating plausible ones. In particular, the evolutionary viewpoint leads immediately to the observation that large firms tend to be ones that have long track records of relative success. That point plus the assumption of some imperfection in any of the markets for labor, financial capital or information provides the foundation of a whole family of explanations of the observed pattern.

The relevance of these various points to the situation in less developed countries is variable and in some respects uncertain. There is little reason to doubt the transferability of the logical critique of the view of SMEs as job-creation

engines, nor is there an empirical case that makes these logical points less relevant. While the demographics of populations of business firms is harder to study in developing countries, most generalizations offered on the subject seem to correspond to what is found in advanced countries. These demographic issues are further discussed below; but to the extent that, for example, enterprise mortality is a factor in gross job destruction in SMEs advanced countries, the same point seems likely to be relevant to LDCs. The observations regarding superior job stability, wages and so forth may be subject to more serious qualification: in many cases, the large enterprises of LDCs may not reflect the outcome of protracted testing in the marketplace, but may instead be the products of some form of state intervention.

Before leaving the subject of job creation, it is important to note that the merits of job creation as a micro-level criterion for policy interventions are far from obvious, quite apart from the question of whether SMEs have special virtue in this regard. Financial assistance guided at the sub-project level by the criterion of minimizing "investment cost per job" could easily be destructive of economy-wide employment even in the short term, depending on the balance of such indirect mechanisms as where the "new" employees are actually drawn from,

and what activities the incremental output competes with.⁷ In the longer term, efforts to advance employment goals in lieu of productivity and efficiency goals could easily have adverse consequences for employment. For example, scarce capital may be shifted toward firms with lower potential growth rates and hence lower employment offerings in the future.

Firm Demographics. The statistical patterns of firm "birth and death" or "entry and exit" have been examined from two quite different perspectives. From one perspective, the patterns are viewed as quasi-equilibrium phenomena in the sense that net change in firm populations is assumed to be small and to have cyclical features or a modest secular trend. While it may display variation it is not expected to display significant patterns of its own. In the other perspective, changes in firm populations are seen as aspects of the dynamic development of a particular product market, industry or sector -- and the large scale patterns of change are a major focus of attention, often the major focus of attention. Interestingly, this particular

⁷ A mid-80s review of World Bank lending to small enterprises offers a confident assertion that lending to small scale industry had generated jobs at lower investment cost than larger industrial projects in the same country (Levitsky, 1986, p. 7). The subsequent discussion, however, introduces one consideration after another that would provide grounds for doubt that the overall employment consequences would necessarily be favorable. Since the bulk of the data is drawn from sub-loan applications, not checked against ex post outcomes (p. 9), a skeptic might even find reason to doubt that the policy lever that was pushed actually moved in the intended manner, much less that the consequences of its movement were the intended ones.

difference of perspective is something that cuts across a variety of other significant differences in approach, such as distinctions between disciplines (economics and sociology), and between descriptive and highly theory-driven analysis.

Among empirically-oriented scholars of economic growth, it has long been recognized that the growth process is one in which the baton of growth leadership is repeatedly passed from one sector to another. This pattern is evident not only when sectors are defined in aggregative terms (as in the agriculture, manufacturing, services sequence) but also for industries within sectors, for segments of industries within industries, and for narrowly defined product markets. Indeed, in contemporary jargon one might express this by saying that growth patterns display a sort of fractal geometry. Qualitatively similar patterns are seen across a range of scales; when magnified, the small details of the large-scale low-resolution picture are seen to resemble the original large-scale picture.

Changes in the sectoral locus of growth leadership are manifested in firm demographics in a number of ways. The most striking of these, certainly, is the typical severity of the "shakeout" -- the sharp decline in the number of producers that often occurs in its third or fourth decade. (Gort and Klepper, 1982; Klepper and Graddy, 1990). For example, an observer familiar with the U.S. telephone or automobile industry only in recent decades may be unaware of the fact that the stones in the industry graveyards show the names of literally thousands of

former producers. While most of these were very small and known only to local markets, some hundreds were more substantial firms.⁸

It is not still not well understood why shakeouts occur and why they vary dramatically in extent -- sometimes the number of producers declines by a very large percentage, sometimes by a moderate percentage, and sometimes hardly at all. One possible line of explanation points to such factors as the over-optimism of entrants, or flawed assessment of opportunities in possible niche markets, or misjudgment of the timing of entry relative to the stage of the business cycle. In a mature market, these factors probably do play important roles; also, of course, the strength of large incumbent firms is a major factor in creating an inhospitable environment for new entrants. In a new industry, however, something much more fundamental to growth is going on-- the quest for product designs and supporting production processes, that effectively bridge the gap between customer needs and technological possibilities. The definition of the industry (or segment or product) is at stake. There is massive experimentation followed by massive selection. Because imitation is a major factor in the competitive process, the many

⁸ It should be noted that these large counts do not include firms merely associated with the industry as, e.g., parts or service companies. The telephone organizations (not all for-profit) provided telephone service to multiple subscribers, the automobile companies produced and sold whole automobiles (or, at least, horseless carriages).

failures of the experimenting firms do not necessarily imply the failures of their experiments.

The reality of the patterns studied in the dynamic development perspective is not open to serious dispute; there are too many well-studied examples. But since those studies have typically focused on the first few decades in the development of a particular product markets or industry, they do not themselves provide a direct approach to the general question of how patterns in firm demographics relate to the general functioning of the economy. It is possible that the aggregate picture is dominated quantitatively by what is happening in mature markets; alternatively, it is possible that the dynamic phenomena are important enough to distort any analysis of sectoral or aggregate data that does not attend to their existence.⁹ The issue here is quantitative, but an adequate resolution would have to deal with large number of conceptual and measurement issues, including the operational definition of a "mature" market and the problem presented by the belated adjustment of industrial classification schemes to new forms of activity. In any case, the literature does not seem to provide much insight into this question.

⁹ Although not directly concerned with firm demographics, the job creation study of Davis, Haltiwanger and Schuh, discussed above, is subject to similar distortion. It gives no attention to the possibility that the aggregate patterns of job creation and destruction in small and large firms might be bound up with historical patterns of development -- other than referring to the point that the limitation of their data to the manufacturing sector might be a significant one.

With that issue left unresolved, the "stylized facts" of firm demographics can be sorted into two categories, the clearly dynamic ones like the shakeout and everything else. In the latter category, some unknown mixture of quasi-equilibrium "turbulence" and the consequences of dynamic change produce the following patterns. Small firms tend to have short average lifetimes. Liquidation, rather than acquisition or other change of legal form, is the overwhelmingly important mode of disappearance of small firms. Rates of disappearance relative to the current population (hazard rates) at a given age decrease with size, and quite abruptly so in the smallest size ranges. Survivors in a given cohort of entrants tend to increase in average size. Gross rates of entry into an industry tend to be large relatively to net rates, but much more so in some industries than in others.

Quantitatively, many of these effects are quite impressive in the sense that economists unfamiliar with this empirical area often react to the facts with shock. A high-quality data set on Wisconsin firms with one or more employees for 1978-86 was created by Neuendorf and Shaffer, and its age-size relationships analyzed with sophisticated tools by Pakes and Ericson (undated). Looking at the 1979 birth cohort of 327 manufacturing firms, it turns out that over 50% of these firms had liquidated by 1986; however, the mean (employment) size of survivors at the end was 2.7 times larger than the mean size of the original cohort, so jobs were "created" by the cohort at a

rate in excess of 3.5% per year in spite of the attrition in firm numbers. In retailing, the corresponding figures are over 60% attrition through liquidation, and growth by a factor of only about 1.6, so there was net job loss. Since retailing entrants were substantially more numerous and slightly larger at birth, the employment in the cohort declined in the two sectors combined at a rate of 3.7% per year.

Similar patterns have been found in a variety of data sets. Dunne, Roberts and Samuelson (1988) reported an extensive analysis of entry and exit into 387 manufacturing industries, using data from the Census of Manufactures. Here, "entry" and "exit" refer not to the birth or death (liquidation) of firms, but to their appearance and disappearance from an industry.¹⁰ Averaging rates across 387 four-digit SIC industries they found, for example, exit rates over the five year inter-census interval to be over 50% regardless of the type of entry (new firm or diversifying); over ten year intervals the cumulative rates are all above 65%. Persistent industry effects are prominent in virtually all measures considered; for example, across 20 two-digit industries the average market share of entrants correlates with the average market share of exiters at the level .92. Across the 387 industries, intertemporal correlations of exit rates are substantial even over long time intervals; for example, the exit rate over 1977-82 correlates with that over

¹⁰ Also, ownership changes do not produce entries or exits under the definitions used by Dunne, Roberts and Samuelson.

the 1963-67 period at .58 -- and this is the maximum range correlation that the data allow. A similar pattern, though less pronounced, exists on the entry rate side. The persistence of industry effects over long periods seems to indicate both the importance of continuing turbulence as a factor in the general patterns and also the industry-specific character of major determinants of turbulence -- but a fifteen or twenty year period is not quite long enough by industry life cycle standards to make this judgment secure. After correction for fixed industry effects, one gets the expected negative correlation between entry and exit rates over any given inter-census interval: there are good times and bad times, and they do not occur simultaneously in all industries. Good times favor entry and depress exit; bad times do the reverse.

One apparent contrast between the Wisconsin data and the Census Bureau data involves to the size of survivors in a particular cohort relative to overall average firm size. Five years after entry, the Census Bureau data indicate a value in the 30% - 40% range, while the corresponding value in the Wisconsin data is around 15%. However, the Dunne, Roberts and Samuelson definition of entry includes entry by established firms from other industries, which tend to be larger (even in the newly-entered industry alone) than new firms. Also, the size measures are different (employment in Wisconsin, value of output in the Census Bureau data).

In an study addressing much the same issues in the context of a developing country, Behrman and Deolalikar (1989) analyzed the survival of medium and large manufacturing establishments in Indonesia over the period 1975-85.¹¹ Their data included all manufacturing establishments with 20 or more employees in 1975. This range excludes the smallest and most vulnerable firms; in the Wisconsin data it corresponds to excluding almost two-thirds of the firms. Nevertheless, Behrman and Deolalikar report failure rates that "seem striking": the mean years of survival after 1975 is 6.4, and only about 45% of the establishments survived through 1985. As in other data sets, both age and size are positively related to survival, as are operation in a heavy industry sector, and productivity (value added/employee). Among ownership forms, the corporate-or-partnership ownership form shows lower expected survival than individual or cooperative-owned establishments when other variables are controlled. This might be attributable to the application of a more rigorously economic survival test, in particular, one that captures opportunity cost considerations more completely. Finally, foreign equity participation is significantly favorable to

¹¹ Although the running head of their article is "Firm Survival Duration in a Developing Country," Behrman and Deolalikar refer only to establishments in the text. The relationship between firm survival and establishment survival -- including the question of whether an establishment death is recorded when a single-establishment firm changes location -- is not discussed. It is likely, however, that disappearances of establishments from the survey do reflect firm deaths in most cases, except for the largest establishments -- where disappearances are rare in any case.

survival, but government equity participation is not. In general, these various results reveal a broad picture in a developing country that is consistent with the patterns that have been identified in advanced countries.

Networks and Other Frameworks. One conclusion that seems to emerge from a variety of sources is this: for a given amount of activity organized in SMEs, the level of economic success and dynamism achieved is roughly proportional to the degree to which the enterprises are embedded in institutional support systems "one level up". This proposition emerged as a product of empirical research and inductive reasoning, guided in particular by interest in understanding some prominent examples of successful networks of small firms.¹² But, in this case as in many others, theory can respond to the challenge of cleaning up after empiricism, finding the logic of the issue or the pattern once it is pointed out.

There are two parts to the theoretical story here. The first part involves identifying an abstract theoretical world where the networking phenomenon does not make sense -- a case analogous to Ronald Coase's theoretical baseline of zero transaction costs. If all firms were embedded in a comprehensive institutional structure that effectively performed basic functions like enforcing contracts and protecting property rights, the differential importance of these functions to

¹² Particularly the supplier networks organized by large firms in Japan, and the less centralized "Third Italy" model celebrated by Piore and Sabel (1984) among others.

smaller firms would not stand out. Similarly, if all information that flowed among firms were a strictly public good, non-rivalrous in use and equally accessible to firms of all sizes, no issue could arise as to how firm size might affect access to this information. Assumptions characterizing these hypothetical situations are familiar as components of standard economic models, but they hardly describe pervasive features of economic reality -- and are perhaps nowhere more in doubt than in the context of SMEs in developing countries.

Given this background, the second part of the story begins with the observation that large firms provide organizational substitutes that fill the gaps in the general institutional structure of society. They do so most obviously in the governing of relations among their constituent actors. Functionally, this is the realm of "contract enforcement," although the specific forms of contract largely give way to those of administrative control. A similar observation applies to the enforcement of "property rights" within the organization; administrative procedures determine the allocation of scarce resources that would be useful in the work setting to a number of different members, and internal controls prevent members from appropriating for personal use resources belonging to the organization as a whole.¹³ Large firms also make their own

¹³ It is familiar enough that these various internal arrangements do not work perfectly, but perfection is not a relevant standard. We hear about the imperfections because the problems those arrangements address are significant.

arrangements to protect their property from external threats, make costly efforts to access information in the environment that is of value to the firm, and invest in diverse ways of governing their external transactions. In each of these cases, the "institutional framework" aspects of the large firm are intimately linked to its production and other narrowly economic activities. In the phrase used above, they are "one level up" from those activities -- an institutional structure that is superordinate but very nearby. Firms therefore find it efficient to implement such structures even in societies where the quality of the general arrangements for these purposes is high, and often seek to guard the autonomy of their own customized structures relative to society's broader ones.

Small and medium enterprises have analogous needs for institutional structure, but do they have analogous methods of responding to those needs? The answer probably depends on which specific needs we are talking about. Economies of scale in the performance of specific activities are one major causal factor. When it comes to the internal aspects of contract enforcement or property protection, it is far from clear that small firms are disadvantaged. On-the-spot observation and decision by an owner-manager may be a very efficient substitute for the elaborate systems that large firms establish for these purposes. But when the boundaries of the firm are being crossed -- by transactions, information, or thieves -- the situation is quite different. Fundamental sources of increasing returns come into

play. At least in a metaphorical sense, and sometimes a literal one, there is more boundary per unit of activity enclosed in a small firm than there is in a large one. It takes more yards of fencing to enclose a given area when the area is fragmented than when it is coherent. A small firm involved in an elaborate inter-firm division of labor may have a lower ratio of value added to sales, and many more transactions per sales than a more integrated large firm. Finally, it is generally costly to identify and access information relevant to the firm's activities, but much less costly to disseminate the information internally once acquired. On a per unit output basis, therefore, small firms carry a heavier cost burden to stay informed than do large ones.

Thus, it is perfectly reasonable that small firms might tend to prosper best under circumstances where they are supported by substitutes for the institutional structures that large firms provide for themselves. In some cases, those substitute institutions are provided by large firms to small ones, particularly through sub-contracting networks. In other cases, cooperative relations among firms organized in business associations or local community structures perform these functions, sometimes with the support of national governments. I would emphasize, however, that the requisite institutional structures are not generally provided by governments, even in advanced countries. For example, it is overwhelmingly the case that it is business firms (not courts) that settle disputes, and

firms that take costly steps to avoid disputes in the first place. Thus, the proper model for the kind of institutional support most needed by SMEs is not provided by the grand society-wide institutional arrangements typified by the legal system in advanced countries, but the "one level up", accessible institutional systems that large firms provide for themselves, and sometimes for their suppliers.¹⁴ We might call these support systems "SMIs" -- small and medium institutions. SMEs need SMIs to prosper. To find SMEs that promote development, look for effective SMIs. Or, "ask not" what can be done to enhance the effectiveness of the innumerable SMEs; ask what can be done to support the less numerous SMIs on which effective SMEs generally depend.

The Wave of the Future? In considering the possible future contributions of SMEs to development, it is important to ponder the implications of recent trends in their role in advanced countries. There seems to be little question about the

¹⁴ This view seems quite consistent with the empirical evidence marshaled by B. Levy in his comparative analysis of SMEs and their support systems in Columbia, Indonesia, Korea and Japan (in the series Can Intervention Work?, World Bank 1994.) It appears, however, that Levy's discussion belies the appropriateness of the title of the series. The core issue (it turns out) is not "intervention" but supportive institutional context. Sometimes national governments manage to play a productive role in promoting such a context.

Of course, SMEs may badly need protection from harassment, extortion, etc., that are de facto a part of the society-wide institutional system. That is a different question from the question of the kind of affirmative support they need, although a very important one.

existence of a broad trend toward an expanded role for smaller enterprises and also toward the greater relative importance of small establishments within large enterprises. This seems to have been underway for about two decades, and represents a reversal of the previously prevailing historical trend toward concentration. Given the limitations of available data and the complexity of the causal relations that may be involved, it is no small task to prove that this trend is real (that the measurements mean what they appear to say) and significant (that the reasons involve some changes directly affecting the competitive environments of small units). As argued by Loveman and Sengenberger (1991), the strength of the case for an affirmative answer on these points does not rest so much on the conviction carried by any single piece of well-honed evidence, but rather on the scope of the evidence across sectors and national economies: "Despite important methodological caveats, the nine country studies taken together present a convincing case for a shift in employment to smaller units of production" (p. 25).

Thus, in thinking about the future roles of SMEs in developing countries, it may be important to question the relevance of current and historical patterns in advanced countries as a conceptual model. The appropriate conceptual model may be visible only at the "leading edge" of the wave of structural change in the advanced countries, or may even remain invisible at this point, but accessible to imaginative

conceptualization through extrapolation of visible changes. In institutional structure as in technology, there may be dividends for latecomers. Developing countries need not recapitulate the concentration of production in large, hierarchically structured organizations. If larger numbers of smaller units does constitute the preferred destination for modern economic organization, perhaps developing countries can take a substantial short cut in getting there.

The difficulty here, of course, lies in the diagnosis of the character and direction of the "wave" -- assuming there is such a wave. A wide range of considerations are arguably at work in producing the trend described, even after excluding those that seek to explain the statistical evidence on SMEs as an artifact of some more fundamental change.¹⁵ Prominent among the candidates that have the most far-reaching implications are two products of the micro-electronic revolution, low-cost communications and flexible capital equipment. The former makes complex coordination economically feasible even across large distances, thus reducing the coordination advantages that large establishments derive from geographical concentration of activity. The latter reduces the cost advantages of

¹⁵ Among the "artifactual" explanations are the following: (i) shifts in the sectoral composition of output in favor of sectors where SMEs play a larger role, especially the rise of the service sector; (ii) counter-cyclical behavior of the SME employment share, coupled with a comparatively high incidence of "bad economic times" in the advanced countries since the mid-70s; (iii) cost advantages for small firms because they present an inconvenient target for union organizers and government enforcement of labor standards.

specialized, high volume production facilities, and allows small firms to adjust their product mix to a rapidly-changing composition of demand. These technological changes are complemented by innovations in management and organizational practice in large firms, which increasingly stress the information and coordination role of the strategic center relative to its direct role in the production of goods and delivery services (Lorenzoni and Baden-Fuller, 1993). The coordination patterns characteristic of successful small firm networks in industrial districts may also count as a recent innovation here, although the basic patterns of cooperation have deep historical roots. At least in some developing countries, the operation of these factors might be expected to generate a 21st century industrial structure without passing through a 20th century stage on the way.

Research Questions

The following suggestions for research are cast in the form of a brief characterization of a significant and fairly broad issue, followed by a list of more specific topics. For any specific topic, feasibility considerations such as data availability and available resources obviously loom large. But there may be other, less costly ways of approaching the same broad issue.

1) Broad issue: The effective management of relationships with suppliers is increasingly recognized as an important dimension

of organizational competence for large corporations. There is an emergent "best practice" standard in supplier relations that is defined and exemplified by firms in a variety of sectors -- Toyota in automobiles, IKEA in household furnishings, Benetton and Liz Claiborne in apparel. Prominent features of this standard include long-term relational contracting, high and rising quality standards, intense communication, and a strong emphasis on learning. In many cases, the supply systems are international, and involve small and medium enterprises in LDCs among their participants.

These supply systems thus provide a paradigm for the transfer of detailed organizational and technological knowledge to the benefit of enterprises in LDCs. The question arises as to whether World Bank initiatives toward SMEs in developing countries might facilitate their entry into similar learning relationships with other firms -- foreign firms, larger firms in their own countries, or each other.

Topics/ actionable items:

- (i) Identify large firms noted for their willingness to devote effort to improving their suppliers' operations.
- (ii) Survey these firms on their practices, and on the criteria they use to identify possible suppliers who are not currently part of their system.
- (iii) Consider the results of (ii), and other sources, in defining prevailing "standards" for SMEs.

Although technical standards are obviously important, it is the organizational and business practice standards that should be of greatest interest to the Bank, because of their greater generality. We know that many SMEs around the world are meeting these standards; in this sense, the prevailing standards do not offer a mere counsel of perfection. It might be helpful for other SMEs around the world to know what these standards are. To that end, it would be helpful for the Bank to know what they are.

2) Broad issue: The economic significance of high "turbulence" (entry and exit rates) in small firm populations is not well understood. As noted above, the fact of high turbulence is well documented in advanced countries. While the corresponding documentation is largely lacking for LDCs, the available data and impressions seem to be broadly consistent with that in advanced countries. In neither context is there a clear view (even theoretically) as to whether high failure rates for small businesses should be viewed as symptomatic of an important shortcoming in the system of economic organization itself, or whether some quite different judgment is suggested -- perhaps even the opposite judgment. This is a very deep and subtle question; it involves the nature and social functions of firms in general and small firms in particular, as well as the institutionally defined meaning and consequences of "failure."

Further, the answer to the abstract question will likely vary with differences in a wide range of contextual factors.

Topics/ actionable items:

(i) There is a need for relatively simple theoretical models that offer a portfolio of alternative welfare (cost-benefit) analyses of the phenomenon of turbulence. The reason for the "portfolio" approach should be clear: the purpose is to provide conceptual support for empirical inquiry confronted with a hugely complex and variegated phenomenon. The name of the game is sorting cases, not postulating an answer. It is not hard to get started on this task by sketching out hypothetical extreme cases where business failures do/do not imply significant social welfare losses. But thornier problems quickly arise.

(ii) Empirical work sensitive to the theoretical issues identified in (i) should follow. The task is to develop a perspective on the turbulence phenomenon that is grounded both theoretically and empirically. At this point, a variety of types of empirical work could be helpful, including careful case studies. A general methodological issue worthy of attention here is whether the (short-lived) "enterprise" is the best unit of analysis; there may be other candidates such as "the entrepreneur" or perhaps "the entrepreneur's family."

(iii) The policy implications of this line of research are quite different depending on whether one thinks in terms of a broad range of policy instruments to promote development, or more specifically in terms of the role of a lender that needs to keep capital intact. As a lender, the Bank must concern itself with the economic viability of borrowers regardless of whether failure entails a social welfare loss, and there is an implied need for concern with the credit-worthiness of borrowers. In a leadership or advisory role for an initiative involving a broader range of policy instruments, the Bank presumably ought to be concerned as well with the social cost-benefit consequences of the initiative. If social welfare losses from business failures are low, the quality of individual loans is less of an issue from an economic standpoint, though it obviously remains important from the narrow financial standpoint. In some case there might well be significant interactions among instruments; for example, technical assistance or organizational assistance provided free to a group of firms might affect the payback from loans to those firms. In both economic and financial terms, evaluation of the lending program would depend on what else is in the package. These policy aspects deserve careful examination, supported by good background

understanding of the welfare implications of turbulence.

3) Broad issue: The apparent trend favoring a larger economic role for smaller production units is another phenomenon that is not well understood. In this case, much of the ambiguity arises from the multiplicity of underlying factors that could be contributing to a phenomenon observed at a macroscopic level. A plausible research objective would be to identify circumstances where this trend is clearly present, is autonomous rather than induced by other changes, and appears to depend importantly on generally operating factors such as the declining costs of communication and computation. The larger objective is to understand the new forces operating on the economic role of SMEs on the ground that policy toward SMEs in developing countries should take these forces into account. For this purpose, useful research could be conducted with data from advanced countries,¹⁶ supplemented to the extent possible with data from developing countries.

Topics / actionable items.

- (i) The evolution of the inter-firm division of labor could be tracked by looking at how value added/ sales ratios are developing by sector and by firm size.
- Declining ratios of value added to sales among large

¹⁶ For the general purpose of studying aspects of interfirm transactions, it would be worth exploring the possibility that countries with value-added taxes might have better statistical sources than the U.S. does -- or at least a better starting point for an effort to establish a sampling frame.

firms would provide statistical confirmation of the widely remarked trend toward outsourcing and vertical disintegration of production, and help to identify the areas where that trend is strong or weak.

(ii) Several sectors that display contrasting patterns of change in the value-added structure could be selected for intensive analysis, with a view to identifying major correlates of these change patterns. If possible, sectors should be selected that are similar in many respects other than the recent evolution of the value-added structure, so as to reduce the number of candidate explanations for the patterns that are seen.

4) Broad issue: I have suggested above that the rate of learning by a small or medium enterprise may depend on the nature of its transacting partners. Research issue 1) presumes, in particular, that certain multinational enterprises make good teachers. Conversely, SMEs that face local labor markets on the input side and local markets for consumer goods and services on the output side may not be well positioned for the relevant sort of learning. They may learn very well how to adjust to local circumstances, but that does not mean that they are participating in the international diffusion of technology and ways of organizing -- the process that is the main source of long-run hope for developing countries. If correct, this picture has strong implications for Bank policy. It would be

helpful to know whether it is correct -- or the degree to which it is correct -- so as to better understand whether Bank policy should be concerned with transacting patterns. The empirical challenge here is daunting, but, as usual, something might be better than nothing.

Topics / actionable items.

(i) Structured, short-term longitudinal case studies might provide a viable methodology. In a particular country, identify a few "prototype" firms in each of several taxonomic categories, where the taxonomic categories reflect the character of transacting partners in input and output markets (and perhaps other considerations). Obtain baseline data, and then follow the firms for a few years. Attempt to determine whether there are patterns of stasis and dynamism at the micro level that support the idea that transacting partners are important.

(ii) Conceivably, there are some statistical data sets that are of sufficient quality to warrant exploration from the same viewpoint.

Concluding Comment

It is obviously not possible to study the problem as a whole; the quest for good research topics is a quest for feasible approaches to illuminating some fraction of the subject. It is worth reiterating, however, that the Bank's most

important long-term advantage in promoting development may lie in its opportunities to address interrelated obstacles simultaneously. It could, for example, mount or promote concurrent efforts of several types to address the problems of SMEs in a particular sector, and perhaps a particular region, in a particular economy. It could seek to address the conditions of founding of new firms, provision of finance, technical assistance, development of mutual support institutions, resolution of disputes both within the sector and externally, and perhaps the reduction of counterproductive governmental interventions. Were the Bank to follow such a coordinated approach, programs could be designed to generate data that would illuminate the impacts and interactions of the various policy elements. It would then be possible, and important, to exploit these data with research designs shaped more by the tradition of program evaluation (or even the design of management information systems) than by the usual social science concern with understanding the functioning of the "natural" system as it would be in the absence of policy intervention.

APPENDIX

"Market Failure" as an Approach to Economic Organization:

A Brief Critique

The market failure viewpoint is one branch of a larger theoretical tradition that, as a whole, offers only limited guidance concerning the specific problems of economic organization. For example, while the market failure approach directs attention to the question of whether economic actors are getting the correct incentive signals from markets, a discussion about the role of small and medium enterprise is in part about the question of what the set of economic actors should be. When the roster of actors is itself an issue, the standard "market failure" presumption that the requisite virtues already inhere in the actors seems out of place: which actors are we talking about, precisely?

As a historical matter, the market failure branch of economic discourse sprang from a main stem that posited "firms" as among the "given" economic actors. It further posited a context of costless and perfect economic institutions that somehow accomplished the practical requisites of real markets, exchange relations and security arrangements -- and then placed that crucial assumption so far in the background that it became invisible. Also, sustained focus on the grand organizational theme of how the posited "firms" relate to the "consumers," indirectly promoted neglect of the study of intermediate product markets -- although it is arguable that the performance of those markets belongs (alongside consumer

sovereignty) at the heart of the case for voluntary exchange systems, as against more centralized alternatives. The argument here rests on the point that whereas standard theory assumes full economic rationality on both sides of all transactions, there are straightforward reasons for thinking that firms are likely to be both more "rational" and more straightforwardly economic in motivation. Thus firm-firm transactions should be expected to approximate theoretical transactions (and their attendant virtues) better than firm-consumer interactions do.

Paralleling its neglect of the "innards" of firms and of key institutions, the market failure tradition generally provides policy guidance only at a very abstract level. Just as the underlying theory skips entirely over the "soft" parts of organizational capability (for example, the part of the "production function" that generates a firm's prices), it also offers views of taxes, property rights, regulations and so forth that abstract from the human beings and organizational arrangements that actually produce these institutional "outputs". One illustration of the consequences of this neglect is the enormous time lag that intervened between academic/theoretical understanding of pollution as a "market failure" problem (variously addressable by negotiation, corrective taxation, or property rights adjustments), and the beginnings of serious institutional design efforts to implement these ideas.

A dissonant counterpoint to this shortcoming of overly abstract remedies is provided by examples where adherence to commonly accepted theoretical assumptions interfered with proper diagnosis of

the problem in the first place. For example, as Williamson (1985) has emphasized, obliviousness to contract enforcement problems commonly arising in intermediate product markets led antitrust policy down a path of hostility toward the private arrangements that coped with those difficulties. Those arrangements provide, in fact, the most compelling illustrations of the significance and diversity of privately-created governance modes ("private ordering").

SELECTED BIBLIOGRAPHY

The works listed here include all those explicitly referenced in the text, plus others that are not so referenced but are of particular importance as background to the discussion.

World Bank Documents:

Multi-author series. 1994. Can Intervention Work?: The Role of Government in SME Success. Washington: World Bank.

Levitsky, J. 1986. World Bank Lending to Small Enterprises: A Review. Industry and finance series, v. 16. Washington: World Bank.

Levy, B. 1991. Obstacles to Developing Small and Medium-Sized Enterprises. Washington: World Bank.

Other Works:

Behrman, J.R., and A.B. Deolalikar. 1989. "... of the fittest?: duration of survival of manufacturing establishments in a developing country." Journal of Industrial Economics 38: 215-226.

Bell, M., and K. Pavitt. 1993. "Technological accumulation and industrial growth: contrasts between developed and developing countries." Industrial and Corporate Change 2: 157-210.

Birch, D.L. 1979. The Job Generation Process. Final Report to Economic Development Administration. Cambridge, MA: MIT Program on Neighborhood and Regional Change (mimeo).

_____. 1987. Job Creation in America. New York: Free Press.

Carroll, G.R., and M. T. Hannan. 1990. "Density delay in the evolution of organizational populations: a model and five empirical tests." In J. Singh, ed., Organizational Evolution: New Directions: 103-128. Newbury Park, CA: Sage.

Cohen, W., and D. Levinthal. 1990. "Absorptive capacity: A new perspective on learning and innovation." Administrative Science Quarterly 35: 128-52.

Dalby, J.S, and M.T. Flaherty. 1990. "Liz Claiborne, Inc., and Ruentex Industries, Ltd." HBS Case 9-690-048. Boston: Harvard Business School.

_____, and _____. 1990. "Ruentex Industries, Ltd., and Liz Claiborne, Inc." HBS Case 9-690-049. Boston: Harvard Business School.

_____, and _____. 1990. "Liz Claiborne, Inc., and Ruentex Industries, Inc.: Building the relationship. HBS Case 9-690-050. Boston: Harvard Business School.

Davis, S.J., J. Haltiwanger and S. Schuh. 1993. "Small business and job creation: dissecting the myth and reassessing the facts. Working paper 4492. Cambridge: National Bureau of Economic Research.

Dunne, T., M. Roberts and L. Samuelson 1988. "Patterns of firm entry and exit in U.S. manufacturing industry. Rand Journal 19: 495-515.

Gort, M., and S. Klepper. 1982. "Time paths in the diffusion of product innovations." The Economic Journal 92: 630-53.

Hannan, M.T., and J. Freeman. 1989. Organizational Ecology. Cambridge: Harvard University Press.

Klepper, S. and E. Graddy. 1990. "The evolution of new industries and the determinants of market structure." RAND Journal of Economics 21: 241-258,

Kogut, B. 1991, "Country capabilities and the permeability of borders." Strategic Management Journal 12: 33-47.

Lorenzoni, G., and C. Baden-Fuller. 1993. "Creating a strategic centre to manage a web of partners. Working paper, U. of Bologna.

Loveman, G., and W. Sengenberger. 1991. "The re-emergence of small-scale production: an international comparison. Small Business Economics 3: 1-37.

Nassar, S. 1994. "Myth: small business as job engine." The New York Times, March 15, 1994: D1.

Nelson, R., and S. Winter. 1982. An Evolutionary Theory of Economic Change. Cambridge: Harvard University Press.

North, D. 1990. Institutions, Institutional Change and Economic Performance. Cambridge: Cambridge University Press.

Pack, H. 1993. "Technology gaps between industrial and developing countries: are there dividends for latecomers?" Proceedings of the World Bank Annual Conference on Development Economics 1992. Washington: The World Bank.

Pack, H. 1994. "Endogenous growth theory: intellectual appeal and empirical shortcomings." Journal of Economic Perspectives 8:55-72.

Pakes, A., and P. Ericson. (no date -- 1992?). "Empirical implications of alternative models of firm dynamics." Working paper, Yale University.

Piore, M., and C. Sabel. The Second Industrial Divide. New York: Basic Books.

Prahalad, C.K., and G. Hamel. 1990. "The Core Competence of the Corporation." Harvard Business Review (May-June): 79-91.

Romer, P. 1993. "Idea gaps and object gaps." Journal of Monetary Economics 32: 543-573.

Sabel, C.F. (1993 working paper). "Learning by monitoring: the institutions of economic development." Forthcoming in Handbook of Economic Sociology, N. Smelser and R. Swedberg, eds.. Princeton: Russell Sage and Princeton University Press.

Schumpeter, J.A. 1934. The Theory of Economic Development. Cambridge: Harvard University Press. (Original work published in German, 1911.)

Williamson, O. 1985. The Economic Institutions of Capitalism. New York: Free Press.

Winter, S. 1990. "Survival, selection and inheritance in evolutionary theories of organization. In J. Singh, ed., Organizational Evolution: New Directions: 269-97. Newbury Park, CA: Sage.

Policy Research Working Paper Series

	Title	Author	Date	Contact for paper
WPS1491	Equilibrium Incentives for Adopting Cleaner Technology Under Emissions Pricing	Peter W. Kennedy Benoit Laplante	August 1995	E. Schaper 33457
WPS1492	Trade Policies, Macroeconomic Adjustment, and Manufactured Exports: The Latin American Experience	Sarath Rajapatirana	August 1995	J. Troncoso 37826
WPS1493	Migration and the Skill Composition of the Labor Force: The Impact of Trade Liberalization in Developing Countries	Ramón López Maurice Schiff	August 1995	J. Ngaine 37947
WPS1494	Adjustment and Poverty in Mexican Agriculture: How Farmers' Wealth Affects Supply Response	Ramón López John Nash Julie Stanton	August 1995	J. Ngaine 37947
WPS1495	Raising Household Energy Prices in Poland: Who Gains? Who Loses?	Caroline L. Freund Christine I. Wallich	August 1995	G. Langton 38392
WPS1496	Reviving Project Appraisal at the World Bank	Shantayanan Devarajan Lyn Squire Sethaput Suthiwart-Narueput	August 1995	C. Bernardo 37699
WPS1497	Public Choices between Lifesaving Programs: How Important are Lives Saved?	Maureen L. Cropper Uma Subramanian	August 1995	A. Maranon 39074
WPS1498	Decentralized Rural Development and Enhanced Community Participation: A Case Study from Northeast Brazil	Johan van Zyl Tulio Barbosa Andrew N. Parker Loretta Sonn	August 1995	M. Williams 87297
WPS1499	The Dynamics of Poverty: Why Some People Escape from Poverty and Others Don't—An African Case Study	Christiaan Grootaert Ravi Kanbur Gi-Taik Oh	August 1995	A. Sachdeva 82717
WPS1500	Agricultural Trade Liberalization in the Uruguay Round: One Step Forward, One Step Back?	Merlinda D. Ingco	August 1995	J. Ngaine 37947
WPS1501	Are Partner-Country Statistics Useful for Estimating "Missing" Trade Data?	Alexander J. Yeats	August 1995	J. Ngaine 37947
WPS1502	Active Labor Market Policies in the OECD and in Selected Transition Economies	Hartmut Lehmann	August 1995	WDR 31393

Policy Research Working Paper Series

Title	Author	Date	Contact for paper
WPS1503 Africa's Growth Tragedy: A Retrospective, 1960–89	William Easterly Ross Levine	August 1995	R. Martin 39120
WPS1504 Savings and Education: A Life-Cycle Model Applied to a Panel of 74 Countries	Jacques Morisset César Revoredo	August 1995	N. Cuellar 37892
WPS1505 The Cross-Section of Stock Returns: Evidence from Emerging Markets	Stijn Claessens Susmita Dasgupta Jack Glen	September 1995	M. Davis 39620
WPS1506 Restructuring Regulation of the Rail Industry for the Public Interest	Ioannis N. Kessides Robert D. Willig	September 1995	J. Dytang 37161
WPS1507 Coping with Too Much of a Good Thing: Policy Responses for Large Capital Inflows in Developing Countries	Morris Goldstein	September 1995	R. Vo 31047
WPS1508 Small and Medium-Size Enterprises in Economic Development: Possibilities for Research and Policy	Sidney G. Winter	September 1995	D. Evans 38526
WPS1509 Saving in Transition Economies: The Summary Report	Patrick Conway	September 1995	C. Bondarev 33974